Year 6 Science Curriculum Outline

The science department at Linslade School delivers a broad and diverse curriculum that instils awe and wonder, a sense of excitement and curiosity about natural phenomena and a window into the wider science world. We plan our schemes to provide a bridge from Lower to Upper School equipping them with knowledge to use across a range of subjects at GCSE and beyond, including how to understand how science can be used to explain what is occurring, predict how things will behave, and analyse causes. Pupils will develop scientific knowledge and conceptual understanding through the specific disciplines of biology, chemistry and physics.
Through the delivery of practical and theory lessons, we develop creative and curious learners and encourage aspirations and an understanding of the future careers that are open to them. Our learners today have an inspirational knowledge base to be our scientific leaders of tomorrow that is vital to the world's future prosperity.

Topic and term	Classification of organisms and Ecosystems (Habitats and food chains)	Electrifying – series circuits and parallel introduction	Sound and Light– how light and travel, reflections and intro to refraction	Keeping Healthy, diet, circulation, drugs etc	Evolution and inheritance	lab skills and investigations – Irreversible changes
Key Skills	*describe how living things are classified into broad groups and state the common	Use recognised symbols when representing a simple circuit in a diagram and place them in the appropriate	Recognise that light appears to travel in straight lines and show this in light diagrams - Use this idea to	To Identify and name the main parts of the human circulatory system, and describe the	Recognise that living things have changed over time and that fossils provide information about living things	Explain that some changes result in the formation of new materials, and that this kind of change is not usually reversible,

	characteristics that they have *accurately identify groups of animals or plants, based on these characteristics *Design keys that help identify groups and specific animals	position. Associate the brightness of a lamp or the volume of a buzzer with the number and voltage of cells used in the circuit Describe how the length of a wire can affect the brightness of a bulb Compare and give reasons for variations in how components function, including the brightness of bulbs, the loudness of buzzers and the on/off position of switches	explain that objects are seen because they give out or reflect light into the eye Explain that we see things because light travels from light sources to our eyes or from light sources to objects and then to our eyes; to draw light ray diagrams Use the idea that light travels in straight lines to explain why shadows have the same shape as the objects that cast them.	functions of the heart, blood vessels and blood To recognise what a balanced diet consists of and the impact of diet, exercise, drugs and lifestyle on the way their bodies' function To describe the ways in which nutrients and water are transported within animals, including humans, by describing the digestive system. Record data and results using scientific diagrams and labels, classification keys, tables,	that inhabited the Earth millions of years ago – identify similarities with animals from the past to animals of the present day Recognise that living things produce offspring of the same kind, but normally offspring vary and are not identical to their parents Identify how animals and plants are adapted to suit their environment in different ways and that adaptation may lead to evolution Understand how	including changes associated with burning and the action of acid on bicarbonate of soda Describe that dissolving, mixing and changes of state are reversible changes Demonstrate a confident approach to practical skills, taking note of risk assessments and appropriate measures to avoid risks. Make predictions to experiments, based on scientific knowledge and understanding Complete practical work

				scatter graphs, bar and line graphs	the Earth has changed along with the animals and plants that live on it – to show a timeline of the animals that existed on Earth.	effectively and write up results and conclusions from the work
Previous learning and next steps links	Some key work (basic) and groups of common animals Ecosystems and inheritance at KS3 and end of KS2, unicellular and multicellular groups/kingdoms of organisms at KS3	LKS2 introduces basic electrical components and how circuits work. KS3 develops the ideas of different types of circuits and resistance, particularly how to measure current and what it is .	Year 3 introduces light, light sources, an understanding of reflection and that shadows can change. KS3 develops the concept of reflection and refraction and how we see colour.	Understanding of what the body looks like and how it works. KS3 – cells, Digestion, respiration and body systems	LKS2 looks at rocks and fossils, with the idea that animals that lived a long time ago are 'preserved' here. KS3-4 looks at inheritance and evolution in more detail, developing the idea of evolution as variation and mutation of genes.	Can identify reversible and irreversible changes accurately and are able to compare and group together everyday materials on the basis of their properties. KS3 ready for practical demands and for the next topics of Forces, Cells, Particle theory and separations.
Numeracy Opportunities	Data, tally, bar charts, pie charts, thermometers, line graphs, tables of results, timing, measuring etc.					

Literacy opportunities	Experimental write ups and recording of information. Key vocabulary, reading text linked to each topic